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| **Halifax County Schools Elementary School Lesson Plan** | | | | | | | | | | | | | | | |
| Subject: Math | **Teacher:** | | | | | | **Grade Level:**  5th Grade | | | **Date(s):1st Six Weeks**  **Week 3:** Sept. 12-16, 2016 | | | | | |
| **North Carolina Standard Course of Study**  *Standards:*  *(Common Core & Essential Standards* | **(\*Indicates heavily weighted standards)**  **\*5.NBT.5** Fluently multiply multi-digit whole numbers using the standard algorithm.  **\*5.NBT.6** Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. | | | | | | **I Can Statements /Learning Targets** (I can……..) | | | **Post I can questions in the classroom.**  I can multiply multi-digit whole numbers. **5.NBT.5**  I can divide four-digit dividends by two-digit divisors. **5.NBT.6**  I can illustrate and explain a division problem using equations, arrays and/or models. **5.NBT.6** | | | | | |
| **Technology Standards & Resources:** | | | **5.SI.1** Apply criteria to determine appropriate information  resources for specific topics and purposes.  \*SMARTboard Technology: Notebook software, internet | | | | | |
| **Essential Question(s):**  (What question(s) should students be able to answer at the end of the lesson/unit?) | **Post Essential Questions in the classroom.**  **5.NBT.5** How do you use an algorithm to multiply whole numbers?  **5.NBT.6** What strategies can you use to divide numbers up to 4-digit dividends and two-digit divisors? | | | | | | **Higher Order Thinking/Revised Blooms:**(Questions that will enable students to find connections or extend learning.) | | | How will knowing how to compute multi digit numbers connect to my life?  How might the world be different without multiplication?  How do you utilize multiplication in your everyday life?  How might the world be different without division?  How do you utilize division in your everyday life? | | | | | |
| **Vocabulary:**  Academic/Content | **5.NBT.5**algorithm • area model • array • factor • product • whole numbers • multiplication  **5.NBT.6** algorithm • whole numbers • equations •array • dividend • divisor •quotient  **Printable Math Vocabulary Cards** [http://www.graniteschools.org/depart/teachinglearning/curriculuminstruction/math/Pages/MathematicsVocabulary.aspx](http://www.graniteschools.org/depart/teachinglearning/curriculuminstruction/math/Pages/MathematicsVocabulary.aspx%20%20%20%20)  **Additional Vocabulary Options-**Vocabulary words posted on math word wall \*Varied methods of teaching vocabulary **Examples: 1. Foldables** (graphic organizer with folded paper): <http://foldables.wikispaces.com/Foldables> **2. Graphic Organizers:**  <http://www.cobbk12.org/Cheathamhill/LFS%20Update/Graphic%20Organizers.htm> | | | | | | **Resources:**  *Everyday Math*: Teacher Editions, Skills Link Book, Math Masters (teacher resource book), Math Student Reference Book (textbook) | | | Wikispaces/Math Websites:  <http://maccss.ncdpi.wikispaces.net/file/view/CCSSMathTasks-Grade5.pdf/375611936/CCSSMathTasks-Grade5.pdf>  <http://3-5cctask.ncdpi.wikispaces.net>  <https://grade5commoncoremath.wikispaces.hcpss.org/>  [http://www.commoncoresheets.com](http://www.commoncoresheets.com/)  [http://www.mrmaffesoli.com](http://www.mrmaffesoli.com   )  <http://www.ixl.com/standards/common-core/math/grade-5>  <http://www.mathgoodies.com/standards/alignments/grade5.html> | | | | | |
| **Standards for Mathematical Practices**  Highlight the practices you will use this week. | 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 2. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics 5.Use appropriate tools strategically. 3. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning | | | | | | | | | | | | | | |
| **Mental Math and Reflexes** | **Monday**  EM Teacher Edition Vol.1 p. 161 | | **Tuesday**  EM Teacher Edition Vol.1 p. 161 | | | **Wednesday**  EM Teacher Edition Vol.1 p. 161 | | | **Thursday**  EM Teacher Edition Vol.1 p. 231 | | | | | **Friday**  EM Teacher Edition Vol.1 p. 161 | |
| Daily Whole Class-oral or writing activity  Encourage students to practice math skills mentally. Level 1 (easy), 2 (medium) and 3(difficult) indicate level of difficulty. | Fact Review Routine  **Level 1** 3\*4=12 3\*40=120  30\*40=1,200 300\*40=12,000  12÷3=4 120÷3=40 1,200÷30=40 | | Fact Review Routine  **Level 2** 5\*8=40 5\*80=400 50\*80=4,000  40÷8=5 400÷80=5  4,000÷80=50 | | | Fact Review Routine  **Level 3** 5,400÷60 54,000÷60=90  540÷9=60 54,000÷90=600 | | | Fact Review Routine  **Level 1**  How many 3’s are in 21?=7  How many 30’s are in 210?=7  How many 3’s are in 270=70 | | | | | Fact Review Routine  **Level 2**  How many 7’s are in 49?=7  How many 70’s are in 490?=7  How many 7’s are in 490?=70 | |
| **Monday**  **Subject Integration:**  **ELA**  *Speaking/Listening*  5.SL.1, 5.SL.2a  5.SL.3, 5.SL.4  5.SL.6  *Writing-*5.W.2  *ReadingInformational*  *Text-*5.RI.7  Everyday Math Student Reference Textbook  p. 10,18-20  **Literature Link:**  **Multiplication**  7x9=Trouble! by Claudia Mills; illustrated by Brian Karas  7x9=Trouble | **Whole Group5.NBT.5**  **4.NF.5, 4.NF.6,4.NF.7 -Skills Needed to master 5.NBT.3**  (Assess students-Resource:<https://grade5commoncoremath.wikispaces.hcpss.org/>)  **1. Mental Math and Reflexes-** Lead the students in mental math daily.  **2. Introduce Vocabulary-** The teacher will teach the vocabulary words and definitions.( create and present via Microsoft PowerPoint orcreate a vocabulary game via -<http://quizlet.com/> or <http://www.bigiqkids.com/SpellingVocabulary/Lessons/wordlist.html>  (or use additional vocabulary options as posted in vocabulary section)  **3. Teacher Input-**The teacher will teach the concept of multi digit multiplication bywith a media presentation (<https://www.khanacademy.org/math/cc-fourth-grade-math/cc-4th-mult-div-topic>) or written examples on the board.  Select a video from this website.**Teacher Demonstration: *Essential Question***- How do you use an algorithm to multiply whole numbers? Teach students to fluently multiply multi-digit whole numbers using the standard algorithm. \*Practice multiplication facts. Use different algorithms and processes (Videos for teaching multiplication algorithms) <http://everydaymath.uchicago.edu/teaching-topics/computation/>  **4.Guided Practice & Independent Practice**  a) *Whole group-*The teacher will engage students in discussion about the video, followed by whole group/partner practice work. Use this website to practice basic skills of the standard- <http://www.ixl.com/standards/common-core/math/grade-5> or Game-<http://mrnussbaum.com/draggablemain/index2/>  *b) Independent Work-* Students will have an opportunity to practice math skills.*(See resources in the independent work section*.)  **5. Solving Word Problems-Math Notebook Journals**(select at least 1 a day)  **Resources:** ClassScape, Schoolnet or 5th Grade Formative Assessment- (website- <http://3-5cctask.ncdpi.wikispaces.net/5.NBT.5-5.NBT.7> \*click on the standard 5.NBT.5 to view word problem) \*Review Problem Solving Strategies \* Students will: a) select a strategy b) solve the problem with an equation and a complete sentence c) Students will explain and prove/defend their answer | | | | | | | **Small Group**  \*Review procedures for daily math workstations  **Guided Math Groups**  Begin meeting with students (4-6 per group). The teacher will meet with at least 2 groups a day. Teach or review a math standard based on data. (i.e. pretest, MAP data, weekly assessment data)  **Resources:**Select based on needs or see Resource Sections Independent work Section  **Spiral Standards:**  4.NBT.6  **Group 1:**  **Low: Students Need Remediation**  Math Standard:  \*Name Students  **Group 2**  **Medium: Need Practice**  Math Standard:  \*Name Students  **Group 3:**  **High: Students Need Rigor and Enrichment**  Math Standard:  \*Name Students | | | | | **Independent Work**   * **Resources**-print activities from these websites or display the assignment on the SMARTboard for students to practice. * Read directions and complete at least 1 problems with the students and then allow them opportunities to practice independently   <http://www.commoncoresheets.com/Multiplication.php>  <http://www.mrmaffesoli.com/Printables/5NBT5/index.html>  **Interactive Games (Independent or Whole Group)**  <http://mrnussbaum.com/draggablemain/index2/>  <http://www.prongo.com/math/multiplication.html>  <http://www.multiplication.com/games> | | |
| **Tuesday**  **Subject Integration:**  **ELA**  *Speaking/Listening*  5.SL.1, 5.SL.2a  5.SL.3, 5.SL.4  5.SL.6  *Writing-*5.W.2  *ReadingInformational*  *Text-*5.RI.7  Everyday Math Student Reference Textbook  p. 10,18-20  **Literature Link:**  **Multiplication**  The Grapes of Math by Greg Tang; illustrated by Harry Briggs  The Grapes of Math | **Whole Group5.NBT.5**  **1. Mental Math and Reflexes-**Lead the students in mental math daily.  **2. Vocabulary-** The teacher will teach the vocabulary words and definitions.(present via Microsoft PowerPoint or create a vocabulary game via - <http://quizlet.com/> or <http://www.bigiqkids.com/SpellingVocabulary/Lessons/wordlist.html> (or use additional vocabulary options as posted in vocabulary section)  **3.Teacher Input-**The teacher will teach the concept of multi digit multiplication bywith a media presentation or written examples on the board. The teacher will teach the concept of multi digit multiplication bywith a media presentation (<https://www.khanacademy.org/math/cc-fourth-grade-math/cc-4th-mult-div-topic>) or written examples on the board.  **Teacher Demonstration: *Essential Question***- How do you use an algorithm to multiply whole numbers? Teach students to fluently multiply multi-digit whole numbers using the standard algorithm.\*Practice multiplication facts. Use different algorithms and processes.Select a video from this website. (Videos for teaching multiplication algorithms) <http://everydaymath.uchicago.edu/teaching-topics/computation/>  **4.Guided Practice & Independent Practice**  a) *Whole group-*The teacher will engage students in discussion about the video, followed by whole group/partner practice work. Use this website to practice basic skills of the standard- <http://www.ixl.com/standards/common-core/math/grade-5> or Game-<http://mrnussbaum.com/draggablemain/index2/>  *b) Independent Work-* Students will have an opportunity to practice math skills.*(See resources in the independent work section*.)  **5. Solving Word Problems-Math Notebook Journals**(select at least 1 a day)  **Resources:** ClassScape, Schoolnet or 5th Grade Formative Assessment- (website- <http://3-5cctask.ncdpi.wikispaces.net/5.NBT.5-5.NBT.7> \*click on the standard 5.NBT.5 to view word problem) \*Review Problem Solving Strategies \* Students will: a) select a strategy b) solve the problem with an equation and a complete sentence c) Students will explain and prove/defend their answer | | | | | | | **Small Group**  \*Review procedures, rules and expectations for daily math workstations.  **Guided Math Groups**  The teacher will meet with at least 2 groups. Teach or review a math standard(s) based on needs and data.  **Resources:**Select based on needs or see Resource Sections Independent work Section  **Spiral Standards:**  4.NBT.2  **Group 1:**  **Low: Students Need Remediation**  Math Standard:  \*Name Students  **Group 2**  **Medium: Need Practice**  Math Standard:  \*Name Students  **Group 3:**  **High: Students Need Rigor and Enrichment**  Math Standard:  \*Name Students | | | | | **Independent Work**   * **Resources**-print activities from these websites or display the assignment on the SMARTboard for students to practice. * Read directions and complete at least 1 problems with the students and then allow them opportunities to practice independently   <http://www.commoncoresheets.com/Multiplication.php>  <http://www.mrmaffesoli.com/Printables/5NBT5/index.html>  **Interactive Games (Independent or Whole Group)**  <http://mrnussbaum.com/draggablemain/index2/>  <http://www.prongo.com/math/multiplication.html>  <http://www.multiplication.com/games> | | |
| **Wednesday**  **Subject Integration:**  **ELA**  *Speaking/Listening*  5.SL.1, 5.SL.2a  5.SL.3, 5.SL.4  5.SL.6  *Writing-*5.W.2  *ReadingInformational*  *Text-*5.RI.7  Everyday Math Student Reference Textbook  p. 11, 21-24  **Literature Link:**  **Division**  [Hershey's Kisses Multiplication And Division](http://www.scholastic.com/teachers/redirect_by_legacy?type=work&legacy_id=1270977" \o "[Hershey's Kisses Multiplication And Division])  by [Jerry Pallotta](http://www.scholastic.com/teachers/redirect_by_legacy?type=contributor&legacy_id=3671&cw=true)  4027356 | **Whole Group5.NBT.6**  **1. Mental Math and Reflexes-** Lead the students in mental math daily.  **2. Vocabulary-** The teacher will teach the vocabulary words and definitions.(present via Microsoft PowerPoint orcreate a vocabulary game via - <http://quizlet.com/> or <http://www.bigiqkids.com/SpellingVocabulary/Lessons/wordlist.html> (or use additional vocabulary options as posted in vocabulary section)  **3.Teacher Input-** The teacher will teach concept of multi digit divisionby presenting the concepts with a media presentation (<https://www.khanacademy.org/math/cc-fourth-grade-math/cc-4th-mult-div-topic>) or written examples on the board. **Teacher Demonstration:** Introduce lesson with an ***Essential Question***-What strategies can you use to divide numbers up to 4-digit dividends and two-digit divisors? Teach students to find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models*.\*Start with 2 digit divisor and dividends* Select a video from this website. (Videos for teaching multiplication algorithms) <http://everydaymath.uchicago.edu/teaching-topics/computation/>  **4.Guided Practice & Independent Practice**  a)*Whole group-*The teacher will engage students in discussion about the video, followed by whole group/partner practice work. Use this website to practice basic skills of the standard- <http://www.ixl.com/standards/common-core/math/grade-5> or <https://www.khanacademy.org/math/cc-fifth-grade-math/cc-5th-arith-operations>\* This resource is interactive-Students can solve the problems on the Smartboard.  *b) Independent Work-* Students will have an opportunity to practice math skills.*(See resources in the independent work section*.)  **5. Solving Word Problems-Math Notebook Journals**(select at least 1 a day)  **Resources:** ClassScape, Schoolnet or 5th Grade Formative Assessment- (website- <http://3-5cctask.ncdpi.wikispaces.net/5.NBT.5-5.NBT.7> \*click on the standard 5.NBT.6 to view word problem) \*Review Problem Solving Strategies \* Students will: a) select a strategy b) solve the problem with an equation and a complete sentence c) Students will explain and prove/defend their answer | | | | | | | **Small Group**  \*Review procedures, rules and expectations for daily math workstations.  **Guided Math Groups**  The teacher will meet with at least 2 groups. Teach or review a math standard(s) based on needs and data.  **Resources:**Select based on needs or see Resource Sections Independent work Section  **Spiral Standards:**  4.NBT.2  **Group 1:**  **Low: Students Need Remediation**  Math Standard:  \*Name Students  **Group 2**  **Medium: Need Practice**  Math Standard:  \*Name Students  **Group 3:**  **High: Students Need Rigor and Enrichment**  Math Standard:  \*Name Students | | | | | **Independent Work**   * **Resources**-print activities from these websites or display the assignment on the SMARTboard for students to practice. * Read directions and complete at least 1 problems with the students and then allow them opportunities to practice independently   <http://www.commoncoresheets.com/Division.php>  <http://www.mrmaffesoli.com/Printables/5NBT6/index.html>  **Interactive Math Games (Independent or Whole Group)**  <http://mrnussbaum.com/draggablemain/index2/>  <http://www.sheppardsoftware.com/mathgames/fruitshoot/fruitshoot_division.htm>  <http://www.mathplayground.com/ASB_DemolitionDivision.html>  <http://www.mathplayground.com/ASB_DragRaceDivision.html> | | |
| **Thursday**  **Subject Integration:**  **ELA**  *Speaking/Listening*  5.SL.1,5.SL.2a, 5.SL.3, 5.SL.3, 5.SL.6  *Writing-*5.W.2  *Reading Informational Text-*5.RI.7  Everyday Math Student Reference Textbook  p. 11, 21-24  **Literature Link:**  **Division**  Divide and Ride by Stuart Murphy and George Ulrich  Divide and Ride | **Whole Group5.NBT.6**  **1. Mental Math and Reflexes-** Lead the students in mental math daily.  **2. Vocabulary-** The teacher will teach the vocabulary words and definitions.(present via Microsoft PowerPoint or create a vocabulary game via -<http://quizlet.com/> or <http://www.bigiqkids.com/SpellingVocabulary/Lessons/wordlist.html>  (or use additional vocabulary options as posted in vocabulary section)  **3.Teacher Input-**The teacher will teach concept of multi digit divisionby presenting the concepts with a media presentation (https://www.khanacademy.org/math/cc-fourth-grade-math/cc-4th-mult-div-topic) or written examples on the board. **Teacher Demonstration:** Introduce lesson with an ***Essential Question***-What strategies can you use to divide numbers up to 4-digit dividends and two-digit divisors? Teach students to find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models*.Select a video from this website*. (Videos for teaching multiplication algorithms) <http://everydaymath.uchicago.edu/teaching-topics/computation/>  **4.Guided Practice & Independent Practice**  a)*Whole group-*Engage the students in discussion, followed by whole group/partner practice work. Use this website to practice basic skills of the standard- <http://www.ixl.com/standards/common-core/math/grade-5> or  <https://www.khanacademy.org/math/cc-fifth-grade-math/cc-5th-arith-operations> \* This resource is interactive-Students can solve the problems on the Smartboard.*b) Independent Work-* Students will have an opportunity to practice math skills.*(See resources in the independent work section*.)  **5. Solving Word Problems-Math Notebook Journals**(select at least 1 a day)  **Resources:** ClassScape, Schoolnet or 5th Grade Formative Assessment- (website- <http://3-5cctask.ncdpi.wikispaces.net/5.NBT.5-5.NBT.7> \*click on the standard 5.NBT.6 to view word problem) \*Review Problem Solving Strategies \* Students will: a) select a strategy b) solve the problem with an equation and a complete sentence c) Students will explain and prove/defend their answer | | | | | | | **Small Group**  \*Review procedures, rules and expectations for daily math workstations.  **Guided Math Groups**  The teacher will meet with at least 2 groups. Teach or review a math standard(s) based on needs and data.  **Resources:**Select based on needs or see Resource Sections Independent work Section  **Spiral Standards:**  4.NBT.2  **Group 1:**  **Low: Students Need Remediation**  Math Standard:  \*Name Students  **Group 2**  **Medium: Need Practice**  Math Standard:  \*Name Students  **Group 3:**  **High: Students Need Rigor and Enrichment**  Math Standard:  \*Name Students | | | | | **Independent Work**   * **Resources**-print activities from these websites or display the assignment on the SMARTboard for students to practice. * Read directions and complete at least 1 problems with the students and then allow them opportunities to practice independently   <http://www.commoncoresheets.com/Division.php>  <http://www.mrmaffesoli.com/Printables/5NBT6/index.html>  **Interactive Math Games (Independent or Whole Group)**  <http://mrnussbaum.com/draggablemain/index2/>  <http://www.sheppardsoftware.com/mathgames/fruitshoot/fruitshoot_division.htm>  <http://www.mathplayground.com/ASB_DemolitionDivision.html>  <http://www.mathplayground.com/ASB_DragRaceDivision.html> | | |
| **Friday**  **Subject Integration:**  **ELA**  *Speaking/Listening*  5.SL.1, 5.SL.2a  5.SL.3, 5.SL.4  5.SL.6  *Writing-*5.W.2  *ReadingInformational*  *Text-*5.RI.7  Everyday Math Student Reference Textbook  p. 10,18-20  p. 11, 21-24 | **Whole Group5.NBT.5 & 5.NBT.6**  **Mental Math and Reflexes**-Lead the students in mental math daily.  **Formative Assessment Tasks**  <http://3-5cctask.ncdpi.wikispaces.net/5.NBT.5-5.NBT.7>  \*Whole Group or Independent  \*Students will solve on paper or on dry erase boards | | | | | | | **Small Group**  \*Review procedures, rules and expectations for daily math workstations.  **Guided Math Groups**  The teacher will meet with at least 2 groups. Teach or review a math standard(s) based on needs and data.  **Resources:**Select based on needs or see Resource Sections Independent work Section  **Spiral Standards:**  4.NBT.2  **Group 1:**  **Low: Students Need Remediation**  Math Standard:  \*Name Students  **Group 2**  **Medium: Need Practice**  Math Standard:  \*Name Students  **Group 3:**  **High: Students Need Rigor and Enrichment**  Math Standard:  \*Name Students | | | | | **Independent Work**  **5.NBT.5 & 5.NBT 6 Assessment**  (\*Add Spiral Questions)  Students can take the assessment paper –pencil or In Schoolnet or ClassScape. | | |
| **Math Workstations** | **Math with My Teacher**  Students attend this rotation during small group | **Math by Myself**  *Examples:Project Based Learning, Math Drills-flash cards, task cards, activity sheets* | | | **Math with Someone**  *Examples: Bingo, Math Drills- flash cards, Math Board Games*  **\*Resource for Games** \*Everyday Math Student Reference Book\*  <http://maccss.ncdpi.wikispaces.net/file/view/5thgrade_GAMES_3.31.14.pdf/499871788/5thgrade_GAMES_3.31.14.pdf> | | | | | | **Math Vocabulary/ Writing**  *Examples: Vocabulary Terms, Graphic Organizers, Writing Steps to Solve Problems, Matching* | | | | **Math with Technology**  *Examples: iPad Apps, computer programs, Math Game Websites, Learning Odyssey, Study Island, etc.* |
| **Reflection-Checking for Understanding**  Students in need of remediation:  Action/Activities: | | | | **Reflection-Checking for Understanding**  Students on target:  Action/Activities: | | | | | | | | **Reflection-Checking for Understanding**  Students who need enrichment:  Action/Activities**:** | | | |